

The following listing of claims will replace all prior versions and all prior listings of the claims in the present application.

Listing of The Claims:

1. (Withdrawn): A method of treating cancer in an individual, comprising administering to said individual a composition comprising a polynucleotide selected from the group consisting of the nucleotide sequences in Table 5, or a polypeptide encoded by the polynucleotide.
2. (Withdrawn): The method of Claim 1, wherein said polypeptide is a human polypeptide selected from the group consisting of the polypeptides in column 3 of Table 5.
3. (Withdrawn): A method of identifying a substance which binds to a polypeptide selected from the group consisting of the polypeptides in column 3 of Table 5, said method comprising contacting said polypeptide with a candidate substance and detecting the binding of said substance to said polypeptide.
4. (Withdrawn): A method of identifying a substance which modulates the function of a polypeptide selected from the group consisting of the polypeptides in column 3 of Table 5, said method comprising the steps of: contacting said polypeptide with a candidate substance and determining the activity of said polypeptide, wherein a change in said activity in the presence of said candidate substance is indicative of said substance modulating the function of said polypeptide.
5. (Withdrawn): A method of diagnosing a cancer in an individual, said method comprising: (a) providing a biological sample of said individual; (b) contacting said biological sample with a probe comprising a fragment of at least 15 nucleotides of a polynucleotide selected from the group consisting of the polynucleotides in Table 5; and (c) detecting the hybridisation between said probe and said biological sample, wherein the presence of hybridisation is indicative of said cancer in said individual.
6. (Withdrawn): A method of diagnosing a cancer in an individual, said method comprising: (a) providing a biological sample of said individual; (b) contacting said biological sample with an antibody which binds to a polypeptide selected from the group consisting of the

polypeptides in column 3 of Table 5; and (c) detecting the binding of said antibody to said sample, wherein the presence of binding is indicative of said cancer in said individual.

7. (Withdrawn): A method of modulating the expression of a polynucleotide selected from the group consisting of the polynucleotides in Table 5 in a cell, said method comprising introducing a double stranded RNA (dsRNA) which hybridises to said polynucleotide, or an antisense RNA which hybridises to said polynucleotide, or a fragment thereof, into the cell.

8. (Withdrawn): The method of claim 7, wherein said modulating is down-regulating.

9. (Original): A polynucleotide comprising a sequence selected from the group consisting of:

(a) any one of the nucleotide sequences in Example 19 or the complement thereof;

(b) a nucleotide sequence which hybridises to a sequence of (a) or a fragment thereof;

and

(c) a polynucleotide sequence which is degenerate as a result of the genetic code to said sequence(s) in (a) or (b).

10. (Original): The polynucleotide of claim 9, wherein said sequence in Example 19 is Shp2 polynucleotide sequence or its complement thereof.

11. (Original): A polynucleotide comprising a sequence selected from the group consisting of:

(a) any one of the nucleotide sequences in Example 28 or the complement thereof;

(b) a nucleotide sequence which hybridises to a sequence of (a) or a fragment thereof;

and

(c) a polynucleotide sequence which is degenerate as a result of the genetic code to said sequence(s) in (a) or (b).

12. (Original): The method of claim 11, wherein said sequence in Example 28 is Dlg1 or Dlg2.

13. (Original): A polynucleotide comprising a sequence selected from the group consisting of:

(a) any one of the nucleotide sequences in Table 5 or the complement thereof;

(b) a nucleotide sequence which hybridises to a sequence of (a) or a fragment thereof;

and

(c) a polynucleotide sequence which is degenerate as a result of the genetic code to said sequence(s) in (a) or (b).

14. (Original): A polynucleotide comprising a sequence selected from the group consisting of:

(a) any one of the nucleotide sequences in Examples 1 to 18, 20 to 27 and 29 or the complement thereof;

(b) a nucleotide sequence which hybridises to a sequence of (a) or a fragment thereof;

and

(c) a polynucleotide sequence which is degenerate as a result of the genetic code to said sequence(s) in (a) or (b).

15. (Original): A polynucleotide comprising a sequence selected from the group consisting of:

(a) any one of the nucleotide sequences in Examples 1, 2, 2A, 2B and 2C or the complement thereof;

(b) a nucleotide sequence which hybridises to a sequence of (a) or a fragment thereof;

and

(c) a polynucleotide sequence which is degenerate as a result of the genetic code to said sequence(s) in (a) or (b).

16. (Original): A polynucleotide comprising a sequence selected from the group consisting of:

(a) any one of the nucleotide sequences in Examples 3 to 9 and 9A or the complement thereof;

(b) a nucleotide sequence which hybridises to a sequence of (a) or a fragment thereof;
and

(c) a polynucleotide sequence which is degenerate as a result of the genetic code to said sequence(s) in (a) or (b).

17. (Original): A polynucleotide comprising a sequence selected from the group consisting of:

(a) any one of the nucleotide sequences in Examples 10 to 29 or the complement thereof;

(b) a nucleotide sequence which hybridises to a sequence of (a) or a fragment thereof;
and

(c) a polynucleotide sequence which is degenerate as a result of the genetic code to said sequence(s) in (a) or (b).

18. (Original): A polynucleotide probe comprising a fragment of at least 15 consecutive nucleotides of a polynucleotide of Claim 9.

19. (Withdrawn) A polypeptide comprising an amino acid sequence selected from the group consisting of the sequences in:

(a) Example 19;

(b) Example 28;

(c) Table 5;

- (d) Examples 1 to 18, 20 to 27 and 29;
 - (e) Examples 1 to 2, 2A, 2B and 2C;
 - (f) Examples 3 to 9 and 9A;
 - (g) Examples 10 to 29; and
 - (h) a homologue, variant, derivative or fragment thereof.
20. (Withdrawn): The polypeptide of Claim 19, wherein said sequence in Example 19 is Shp2 polypeptide.
21. (Withdrawn): The polypeptide of Claim 19, wherein said sequence in Example 28 is Dlg1 or Dlg2 polypeptide.
22. (Original): A vector comprising a polynucleotide according to Claim 9.
23. (Original): An expression vector comprising a polynucleotide according to Claim 9, which is operably linked to a regulatory sequence which directs the expression of said polynucleotide in a host cell.
24. (Withdrawn): An antibody which binds to a polypeptide of Claim 19.
25. (Original): A method for detecting the presence or absence of a polynucleotide of Claim 9 in a biological sample, said method comprising:
- (a) contacting the biological sample under hybridising conditions with a probe comprising a fragment of at least 15 consecutive nucleotides of a polynucleotide having a sequence set forth in Example 19 or a complement thereof;; and
 - (b) detecting hybridisation between said probe and said sample.
26. (Withdrawn): A method for detecting a polypeptide of Claim 19 present in a biological sample which comprises:
- (a) providing an antibody that binds to said polypeptide;

- (b) contacting said biological sample with said antibody; and
 - (c) determining binding of said antibody to said biological sample.
27. (Withdrawn): A method of treating cancer in an individual comprising administering a polynucleotide of Claim 9.
28. (Withdrawn): A method of treating cancer in an individual comprising administering a polypeptide of claim 19.
29. (Withdrawn): A method of treating cancer in an individual comprising administering an antibody of claim 22.
30. (Withdrawn): A method for identifying a substance which binds to a polypeptide of Claim 19, said method comprising contacting said polypeptide with a candidate substance and detecting the binding of said substance to said polypeptide.
31. (Withdrawn): A method for identifying a substance which modulates the function of a polypeptide of Claim 19, said method comprising the steps of: contacting the polypeptide with a candidate substance and determining the activity of said polypeptide, wherein a change in activity in the presence of said candidate substance is indicative of said substance modulating the function of said polypeptide.
32. (Withdrawn): A method of identifying a human nucleic acid sequence, by: (a) selecting a Drosophila polypeptide identified in any of Examples 11 to 39, (b) identifying a corresponding human polypeptide; and (c) identifying a nucleic acid encoding the human polypeptide of (b).
33. (Withdrawn): A method according to Claim 32, in which a human homologue of the Drosophila sequence, or a human sequence similar to the Drosophila sequence, is identified in step (b).
34. (Withdrawn): A method according to Claim 32, in which the human polypeptide has at least one of the biological activities, preferably substantially all the biological activities of the Drosophila polypeptide.

35. (New): An expression vector comprising a polynucleotide according to Claim 16, which is operably linked to a regulatory sequence which directs the expression of said polynucleotide in a host cell.

36. (New): A method for detecting the presence or absence of a polynucleotide of Claim 16 in a biological sample, said method comprising:

(a) contacting the biological sample under hybridising conditions with a probe comprising a fragment of at least 15 consecutive nucleotides of a polynucleotide having a sequence set forth in Examples 3 to 9 and 9A or a complement thereof; and

(b) detecting hybridisation between said probe and said sample.